

REMARKS

In the above-referenced Office Action the Examiner objected to the claims because of a typographical error in Claims 2 and 3. By this amendment that error has been corrected.

Independent Claims 2 and 3 have been rewritten to further explain that the packer cup of this invention has been used to provide a seal between a pipe and a coaxially mounted tube. The function of the cup is to provide a stationary seal within this annulus so that pressure from within the tube which is expelled below the seal into the pipe is contained within the pipe to test the pipe for various abnormalities. U.S. Patent application Serial No. 2003/0098153A1 cited by the Examiner in this case provides a description of the function of packer cups in a well structure. The independent Claims have further been amended to specify explicitly that the cup is expandable responsive to internal pressure within the sleeve or cup. As described in the instant specification at page 7, second full paragraph, at relatively lower pressure, the lip expands against the casing, and as pressure increases, the sleeve portion of the cup expands further against the internal surface of the casing or pipe. Obviously in order to remove the tube from within the pipe, when pressure is released, the cup must return to its original shape.

Independent Claims 2 and 3 stand rejected under 35 USC 102 on the Miser patent. All Claims are rejected under Section 102 as being anticipated by the Burke application. It is respectfully requested that these rejections be reconsidered and withdrawn for the following reasons:

Attached hereto is a Declaration pursuant to Rule 132 and entry of this Declaration is requested. The Declaration is by a professional geophysicist and therefore qualifies as expert testimony.

To summarize, the rejection under 35 USC 102 should be withdrawn with reference to the Miser patent because the heel and lip portions in that patent are not integral but rather held together by an adhesive. In addition the heel portion is described as generally nonflexible generally non-resilient material. In contrast the polyurethane cup of the instant invention is expandable both in the lip portion and in the sleeve portion which would correspond to the heel described in the Miser patent.

As previously pointed out, the Miser patent describes a seal for a pump wherein the seal surrounds the pump rod and is intended to reciprocate. The lip portion and heel portion are joined by bonding so that the heel portion and lip portion can separate causing failure.

In contrast, the instant packer cup is a stationary seal which, once it engages the inner surface of the pipe or casing, does not move and therefore is not susceptible to wear. By being integrally formed failure between the softer lip and the stiffer sleeve should not occur. See paragraphs 4 and 6 of the Templeton declaration.

The rejection under 35 USC 102 based upon the Burke patent should also be reconsidered and it is requested that rejection be withdrawn for the following reasons:

As in the case of the Miser patent, the Burke patent also describes a reciprocating piston within a cylinder wherein the seal is a seal between the piston and the inner wall of the cylinder. Because of the reciprocal nature of the function of the seal, it is described that an annular bulge is used to minimize wear on the body of the seal. The patent also

provides that the heel and lip sections are joined by bonding and are not therefore integral.

Furthermore, in the Burke patent the annular bulge is described as being compressible upon insertion into the cylinder because the diameter thereof is slightly larger than the interior diameter of the cylinder. The heel portion however does not expand because the annual bulge is described as the pressure point. As described in the patent application, in the prior art the pressure point was at the heel of the seal and the provision of the annular bulge moved that pressure point to the bulge itself.

The packer cup of the instant invention does not describe an annular bulge, but rather a bell-shaped end which has a diameter slightly less than the inner diameter of the pipe. Since the packer cup of the instant invention does not reciprocate, friction related wear is not a consideration.

Because of the functional differences between the seals of Burke and Miser, as compared with the seal of the instant invention entirely different considerations are raised. As pointed out in the instant declaration one of ordinary skill in the art would not look to reciprocating seals for teaching to construct a stationary seal such as that formed by a packer cup.

In summary, there is no teaching in the prior art for providing an integral packer cup wherein the bell-shaped portion and the sleeve portion are integral. Also, the entire cup is expandable wherein there is no reason for the sleeve or heel portion in either Miser or Burke to expand. The seal is formed by an annular bulge in both cases which surrounds the forward end of the reciprocating member. Finally, Miser clearly teaches an

inflexible heel portion rather than a flexible sleeve such as that described with reference to the instant invention.

Accordingly, Applicant now considers this case in condition for allowance and an early notice thereof is requested.

Respectfully submitted,

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on Oct 10, 2006
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